

REMARKS

The office action rejects claims 1 - 4, 7, 9, 13 - 16 and 18 - 20 under 35 U.S.C. 102(b) as being anticipated by U.S. Publication No. 2002/004694 to *McLeod*. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *McLeod* in view of U.S. Patent No. 6,435,019 to *Vojtisek-Lom*. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over *McLeod* in view of U.S. Publication No. 2003/0159044 to *Doyle*. Finally claims 6 and 17 were indicated as being allowable if rewritten in independent form to include the base claim and all intervening claims.

Allowable Subject Matter

Applicant appreciates the Examiner's indication that claims 6 and 17 constitute allowable subject matter if rewritten in independent form to include their base claim and all intervening claims.

Telephone Interview

Applicant would like to thank the Examiner for the telephone interview conducted on January 10, 2008. During the interview, claims 1 and 13 were discussed in view of the *McLeod* reference. As discussed, it is Applicant's position that *McLeod* fails to teach, disclose or even suggest each of the limitations of claim 1 in which a device for testing the exhaust emissions comprises a base, a gas sensor and a portable hand held display where,

- 1) each include a wireless real-time data transmitter and receiver;
- 2) said gas sensor and display device are detachable from said base station for independent use; and
- 3) each include power packs to provide the necessary power when they are remote from the base station.

Moreover, *McLeod* fails to teach or disclose each of the limitations of claim 13 in which a device for testing the exhaust emissions comprises a base station, a remote gas sensor and a remote hand portable display device where,

- 1) each is detachable from the base station for independent use;
- 2) wherein said base station, sensor and display device further include at least one of a radio transmitter and receiver whereby data can be transmitted and received therebetween.

In the claimed invention, the remote gas exhaust sensor and the remote hand portable display are detachable from the base station and each can be used independently from each other and the base station. The claims wireless transmitter and receiver in each of the devices allows the devices to communicate with each other when they are operated remotely and independently of one another. Furthermore, claim 1 further calls for the limitation that the remote gas sensor and remote handheld display each have their own power source to further allow each to operate independently of the other and the base station.

The background of *McLeod* states that one problem with prior art diagnostic systems is that they become obsolete quite quickly as vehicle technology rapidly advances. (Para. 0004 – 0005). Moreover, diagnostic equipment is bulky, occupies large space and each have specific probes, keyboards and display screens. (Para. 0006). Thus, *McLeod* makes it clear that it would be desirable to work with probes, view the display screen and input commands quickly and efficiently. Additionally, it is also desirable to be able to easily move the diagnostic equipment to different service bays and around the vehicle being tested. (Para. 0007). Thus, *McLeod* is generally directed to a modular vehicle diagnostic system having a plurality of constituent diagnostic and/or signal processing devices that may be selectively combined to form a vehicle diagnostic assembly, which are operated as a single unit and not remotely from one another. (Para. 0042).

Referring to Figure 2, a group of modules, that include a user interface unit 48, vehicle signal and data interfacing modules 50 and 52, vehicle signals and data preconditioning modules 54, 56 and 64 and auxiliary components 58, 60 and 62, are interconnected by lead wires to central interface unit 48. User interface unit 48 may include a display for displaying vehicle parameters or other information (Para. 0071) and may include a device for inputting information (Para. 0072). User interface unit 48 may include a data processor to control operation of the user interface and/or some or all of the interconnected devices. (Para. 0073). User interface unit 48 may be powered by the vehicle battery, from an AC power supply through a DC adapter, or may include a battery pack to provide power and/or backup power during testing. (Para. 0076). Thus, user interface unit 48 replaces the base station and connects to the various other modules.

User interface unit 48 may include a plurality of devices that may be selectively interconnected by a solid medium, such as conductive metal or by other modes such as radio waves or electromagnetic radiation. (Para. 0175). Communications between user interface unit 48 and programmable break-out-box 56, amplification unit 54, gas analysis module 58, and data processor 62 occur via serial communication channels. (Para. 0177). One select paragraph 175 mentions that a communications channel may be made through radio waves or electromagnetic radiation, however it is not clear whether the communication occurs between the various modules of user interface 48 or between user interface 48 and docking station 60.

At paragraph 201, the disclosure expressly states that

to diagnose a vehicle, a mechanic chooses the component or system to be tested and interconnects the modules or devices for performing the desired test. For example, a mechanic that would like a display of the secondary ignition signals of a distributorless ignition system would first conjoin the diagnostics module to the user interface unit. The mechanic would also plug the diagnostic module lead set into the diagnostic module and provide a

connection from a power source to the user interface unit. FIG. 29 shows the user interface unit 48 conjoined with the diagnostics module 50 and the lead set 700. The lead set includes power lead 702 connecting AC power supply adapter 704 to the user interface unit 48. The AC power supply adapter includes a plug for connection to an AC power supply.

The disclosure goes on to state in paragraph 204 that

user interface unit 48 serves as a base unit for various assemblies. Additional modules or devices may be obtained at the discretion of a mechanic. For example, a mechanic dedicated to ignition system repair may obtain or purchase only an ignition signal receiver and a diagnostics module. Additional modules, such as a gas analysis module or a scan tool module, may be obtained if the need or desire to expand the capacity of the diagnostic system arises. Further, if advances in automotive or diagnostic technology render a particular module or device out-of-date, that module or device may be replaced without having to replace other devices or modules, such as the user interface unit.

McLeod fails to teach, disclose or at the very least suggest the use of a remote gas exhaust sensor and a remote data input terminal containing a keypad, where each contains one of a transmitter or receiver and a battery pack, and each can be used independently of the other. Moreover, *McLeod* states that the purpose of the invention is to provide a portable modular base station that allows the user to move around the vehicle without a cumbersome base station. Furthermore, because the base station is modular, new diagnostic modules may be added or changed as technology changes. There is, however, no teaching or suggestion that the modules should be used remotely from the user interface 48 independently of one another. That is, there is no disclosure that each module should contain a wireless transmitter and receiver and battery pack to allow it to operate separately from the base station and each other diagnostic module.

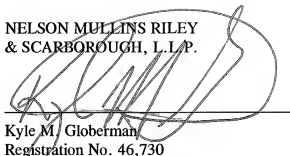
CONCLUSION

For at least the above reasons, independent claims 1 and 13 are allowable over *McLeod*, and are in condition for allowance. Dependent claims 2 - 4, 6 - 7, 9 - 12 and 14 -

20 directly or indirectly depend from independent claims 1 and 13. These dependent claims recite further limitations and are allowable in their respective combinations. Favorable action and withdrawal of the present rejections and objections is, therefore, respectfully requested. The Examiner is invited to call the undersigned at his convenience to resolve any remaining issues. Please charge any additional fees or credit any overpayment to Deposit Account No. 50-1196.

Respectfully submitted,

NELSON MULLINS RILEY
& SCARBOROUGH, L.L.P.

A large, stylized handwritten signature in black ink, which appears to read 'K. M. Globerman', is written over a horizontal line.

Kyle M. Globerman
Registration No. 46,730
1320 Main Street, 17th Floor
Columbia, SC 29201
(404) 322-6204
Fax (803) 255-9831